

What is claimed is:

Sub
B1
5

1. A method of annunciating problems in a system, comprising producing signals for concurrently indicating a plurality of system problems and problem priority information associated with said system problems, in response to data representative of system conditions.

10
a lot of
solutions

2. The method of claim 1 wherein producing signals for depicting problem priority information comprises quantifying a relative importance of said system problems.

3. The method of claim 2 further comprising producing signals which represent a cost associated with at least one problem.

15

4. The method of claim 3 wherein producing signals which represent a cost, comprises determining service level agreement penalties associated with breaches of service level agreement clauses.

20

5. The method of claim 1 wherein producing said signals comprises producing signals which identify some of said performance degradation information and said service violation information as being associated with a root cause of one of said plurality of system problems.

25

6. The method of claim 5 further comprising receiving from an alarm correlator an indication of an alarm associated with a root cause of a problem.

30

7. The method claimed in claim 1 wherein producing signals comprises producing signals for use by a display device for producing a display image.

ORIGINAL BEHIND

- B1
- 5
- 10
- 15
- 20
- 25
- 30
8. The method of claim 7 further comprising enabling user selection of at least one of performance degradation information, alarm information and service violation information, for concurrent display with an associated system problem.
9. The method of claim 1 wherein producing signals for depicting problem priority information comprises producing signals for depicting at least one of performance degradation information and service violation information.
10. The method of claim 9 wherein producing signals for depicting problem priority information comprises correlating said performance degradation information and said service violation information to identify said problem priority information associated with said system problems.
11. The method of claim 10 wherein producing signals for depicting problem priority information comprises quantifying at least one of performance degradation information and service violation information to identify said problem priority information associated with said system problems.
12. The method of claim 11 further comprising receiving a plurality of alarm data units.
13. The method of claim 11 further comprising receiving a plurality of performance degradation data units for providing said performance degradation information.
14. The method of claim 11 further comprising receiving a plurality of service violation data units for providing service violation information.

- B1
- 5
- 10
- 15
- 20
- 25
- 30
15. The method of claim 11 further comprising receiving alarm data units for providing alarm information receiving performance degradation data units for providing performance degradation information and receiving service violation data units for providing service violation information.
 16. The method of claim 15 further comprising associating at least one of said performance degradation information and said service violation information with one of said system problems.
 17. The method of claim 16 further comprising producing signals representing a count of at least one of said alarm data units, said performance degradation data units and said service violation data units related to said one of said system problems.
 18. The method of claim 1 wherein producing signals comprises producing signals for displaying a system problem hierarchy including at least one system problem, and at least one of performance degradation information, alarm information and service violation information associated with a selected one of said problem objects.
 19. The method of claim 1 further comprising transmitting said signals to a display device for use in producing a visual display.
 20. The method of claim 1 further comprising producing a display image in response to said signals.
 21. A method of annunciating problems in a system comprising displaying a plurality of system problems and problem priority information associated with said system problems in response to data representative of system conditions.

- B1
- 5
- 10
- 15
- 20
- 25
- 30
22. A computer readable medium for providing instructions for directing a processor circuit to produce signals for concurrently indicating a plurality of system problems and problem priority information associated with said system problems, in response to data representative of system conditions.
23. A signal embodied in a carrier wave, said signal comprising a code segment for directing a processor circuit to produce signals for concurrently indicating a plurality of system problems and problem priority information associated with said system problems, in response to data representative of system conditions.
24. An apparatus for annunciating problems in a system, comprising
- a) means for receiving data representative of system conditions; and
 - b) means for producing signals for concurrently indicating a plurality of system problems and problem priority information associated with said system problems, in response to said data.
25. An apparatus for annunciating problems in a system, comprising:
- a) a receiver for receiving data representative of system conditions; and
 - b) a signal generator for producing signals for concurrently indicating a plurality of system problems and problem priority information associated with said system problems, in response to said data.

- B1
- 5
- 10
- 15
- 20
- 25
- 30
26. The apparatus of claim **25** wherein said signal generator comprises a processor circuit configured to quantify the relative importance of said system problems.
27. The apparatus of claim **26** wherein said processor circuit is configured to associate a cost with at least one system problem.
28. The apparatus of claim **27** wherein said processor circuit is configured to produce signals representing service level agreement penalties which are associated with breaches of service level agreement clauses, in response to said data.
29. The apparatus of claim **25** wherein said signal generator comprises a processor circuit configured to identify some of said performance degradation information and said service violation information as being associated with a root cause of one of said plurality of system problems.
30. The apparatus of claim **29** wherein said processor circuit is configured to receive from an alarm correlator an indication of an alarm associated with a root cause of a problem.
31. The apparatus claimed in claim **25** wherein said signal generator is operable to produce signals for use by a display device for producing a display image.
32. The apparatus of claim **31** wherein said signal generator is operable to produce signals for concurrently displaying with an associated system problem at least one of performance degradation information, alarm information and service violation information.

- B1
- 5
- 10
- 15
- 20
- 25
- 30
33. The apparatus of claim 32 wherein said signal generator is operable to produce said signals for concurrently displaying said at least one of performance degradation information, alarm information and service violation information in response to user input.
34. The apparatus of claim 25 wherein said signal generator is configured to produce signals for depicting at least one of performance degradation information and service violation information.
35. The apparatus of claim 34 wherein said signal generator is configured to correlate said performance degradation information and said service violation information to identify said problem priority information associated with said system problems.
36. The apparatus of claim 35 wherein said signal generator is configured to quantify at least one of performance degradation information and service violation information to identify said problem priority information associated with said system problems.
37. The apparatus of claim 36 wherein said signal generator is configured to receive a plurality of alarm data units.
38. The apparatus of claim 36 wherein said signal generator is configured to receive a plurality of performance degradation data units for providing said performance degradation information.
39. The apparatus of claim 36 wherein said signal generator is configured to receive a plurality of service violation data units for providing service violation information.
40. The apparatus of claim 36 wherein said signal generator is configured to receive alarm data units for providing alarm information, receive

B1
performance degradation data units for providing performance degradation information and receive service violation data units for providing service violation information.

5 **41.** The apparatus of claim **40** wherein said signal generator is configured to correlate at least one of said alarm information, performance degradation information, service violation information with one of said system problems.

10 **42.** The apparatus of claim **41** wherein said signal generator is configured to produce a count of at least one of said alarm data units, said performance degradation data units and said service violation data units related to said one of said system problems.

15 **43.** The apparatus of claim **25** wherein said signal generator is configured to indicate a system problem hierarchy including at least one system problem, and a representation of at least one of performance degradation information, alarm information and service violation information associated with one of said system problems, selected by a user.

20 **44.** The apparatus of claim **25** further comprising a transmitter for transmitting said signals to a display device.

25 **45.** A display apparatus for annunciating problems in a system, the apparatus comprising:

- 30 a) a receiver for receiving data representative of system conditions;
- b) a signal generator for producing signals for concurrently indicating a plurality of system problems and problem priority

